

Worksheet 6.1 I: Similarity

Express the ratio in simplest form.

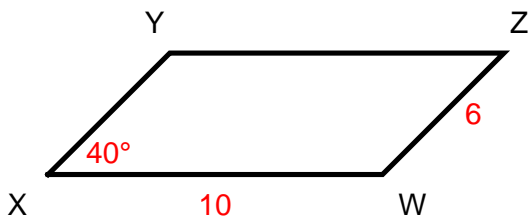
1. $\frac{16}{20}$ 2. $\frac{6m}{10m}$ 3. $\frac{4x^2}{2x^2}$ 4. $\frac{6a}{12abc}$

Find the value of x.

5. $\frac{4}{x} = \frac{2}{5}$ 6. $\frac{2}{5} = \frac{3x}{7}$ 7. $\frac{x+2}{3} = \frac{3}{4}$

8. $\frac{x+4}{x-4} = \frac{6}{5}$ 9. $\frac{3x+5}{3} = \frac{18x+5}{7}$ 10. $\frac{2x+1}{4x-1} = \frac{3}{5}$

XYZW is a parallelogram. Find the value of each ratio.



11. $XW : WZ$ 12. $XY : WZ$

13. $m\angle Z : \angle Y$ 14. $m\angle X : m\angle Z$

15. $XY : \text{perimeter of } XYZW$

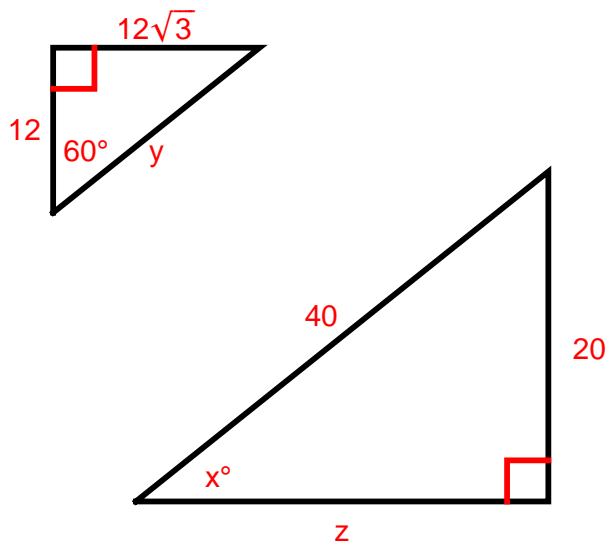
Decide whether the two polygons are Always, Sometimes, or Never similar.

16. Two right triangles. 17. Two scalen triangles.

18. Two equilateral triangles.
19. Two isosceles triangles.
20. Two squares.
21. Two rectangles.
22. A right triangles and an acute triangle.
23. A right triangle and a scalene triangle.
24. An equilateral triangle and an equiangular triangle.

Two similar polygons are shown. Find the values of x , y , and z .

25.



26.

